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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/808,022 | 03/23/2004 | Takahiro Yoshimi | CFA00064US | 5696 |
| 34904 | 7590 | 04/25/2007 | EXAMINER | |
| CANON U.S.A. INC. INTELLECTUAL PROPERTY DIVISION 15975 ALTON PARKWAY IRVINE, CA 92618-3731 | | | ABDIN, SHAHEDA A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2609 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 04/25/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/808,022 | YOSHIMI ET AL. | |
| | Examiner | Art Unit | |
| | Shaheda A. Abdin | 2609 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 23 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 March 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 02/17/2006 & 07/11/2005.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Preliminary Amendment

1. The preliminary amendment filed on 07/17/2006, has been entered.

Drawings

2. The drawings are objected to because there are no labels for each block of figures 1-11. These figures need to have descriptive labels under 37 CFR 1.84(n) and 1.84(o). For example in fig.1, block 6, would be labeled for photodetector.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claim 1, lines 7-8, " a position detecting photoreceptor for detecting the luminous flux which has passed said cross pattern filter **by a plurality of light receiving units divided by parting lines**", it is unclear whether "detecting by" or "pass by". Similarly, it is unclear whether "the detector is divided by parting lines or light receiving units divided by parting lines", renders the claim indefinite because it is unclear.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tateki et al. (JP Publication No: 09-181340, see IDS) in view of Barricau et al. (US Patent No.:6522397 B2).

(1) Regarding claim 1:

As shown in figs. 13, and 32, Tateki et al. discloses an optical transmission device comprising:

an optical transmission device for transmitting information by using a light emitting device (diode, 1) for converting an electrical signal to an optical signal; and a signal detecting photoreceptor (10) for converting a received optical signal to an electrical signal, comprising: ([0003], lines 4-5, [0004], [0007], 1-5, and fig. 32):

Tateki et al. further discloses light emitting device of an opposite partner device (LB) ([0003], lines, 4-9, and fig. 32) having:

a position detecting photoreceptor (9) for detecting the luminous flux which has by a plurality of light receiving units divided by parting lines (according to fig 34, position

detecting photodetector has light receiving unit divided by parting lines) ([0006] lines 4-10, fig. 32).

Tateki et al. discloses all of the subject matter as described above except for a cross pattern filter; wherein a radial direction of a cross pattern passed said cross pattern filter, differs from a direction of said parting lines.

However, Barricau et al. in the same field of endeavor, discloses a cross pattern filter (30, in fig. 3) for passing a luminous flux (column 5, lines 25-41); wherein a radial direction of a cross pattern passed said cross pattern filter, differs from a direction of said parting lines (it is inherent to put the cross pattern filter (30) in radial direction to the detector (see fig.3), and differs from a direction of said parting line (a photoreceptors whose output signals correspond to the received luminous intensity, in fig. 4, the spectral filter means 30 are tuned to a frequency close to the frequency F_0 of the laser beam, the transmission being approximately 50% at the frequency F_0 , as a result the function of the direction of movement of the particles relative to the measuring device, the frequency of the light diffused by the particles may be greater than or less than the frequency F_0 and its transmission by the means 30 will be respectively greater than or less than what it would be for the frequency F_0 ; in fig. 3, for generating monochromatic reference fluxes that are injected into the luminous flux transmitted by the optical system 22 and picked up by the photodetectors of the CCD video cameras 24 and 28, therefore, it is inherent to perform the position detector by said luminous flux which has passed cross pattern filter, differs from a direction of parting line of position detector) (column 5, lines 35-40, column 5, lines 26-41, and fig 3 and fig. 4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a cross pattern filter (filter) and a photoreceptor (24) as taught by Barricau et al., in to the system of Tateki et al., to convert an optical signal into an electric signal, for further signal processing. In combination these features result in an optical transmission that may be fabricated with relatively compact and inexpensive, because such features are excepted to have improved performance, higher reliability, reduced circuit size and greater functionality.

Conclusion

8. Any inquiry concerning this communication should be directed to the examiner at (571) 270-1673 Monday- Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu, can be reached at (557) 272-3036.

Information regarding the status on an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (tool-free). If you would like assistance from a USPTO Customer Service Representative or access to the

Art Unit: 2609

automated information system, call 800-786-9799 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of patents and trademarks

Washington, D.C. 20231

Or fax to:

(703)872-9314 (for Technology Center 2600 only)

Shaheda Abdin

03/12/2007

Shuwang Liu
SHUWANG LIU
SUPERVISORY PATENT EXAMINER
